

CLAIMS

1. A linear sliding guide comprising a shaped rail (1) which extends in the longitudinal direction and which is of a given cross-section with sliding surfaces, and a slider (2) which is axially displaceable on the sliding surfaces of the shaped rail and wherein provided on the slider (2) are sliding bearings (6, 7) which in the position of installation bear against the sliding surfaces and the contact pressure of which against the sliding surfaces is adjustable by way of clamping means, characterised in that the shaped rail (1) has mutually oppositely disposed recesses (10, 12) extending in the longitudinal direction, that the sliding surfaces are provided within the recesses (10, 12), that provided in corresponding relationship with each recess (10, 12) on the slider (2) is a prestressing bar (5) with a wedge-shaped operative surface which can be pressed into the respective recess (10, 12) and that the sliding bearings (6, 7) are respectively arranged on the operative surfaces.

2. A linear sliding guide according to claim 1 characterised in that the prestressing bars (5) are radially displaceable.

3. A linear sliding guide according to claim 2 characterised in that the prestressing bars (5) are displaceable independently of each other.

4. A linear sliding guide according to one of claims 1 to 3 characterised in that the sliding surfaces are of an arcuately concavely curved configuration and the surfaces of the sliding bearings (6, 7), which bear against the sliding surfaces, are convexly rounded in complementary relationship with the sliding surfaces.

5. A linear sliding guide according to one of claims 1 to 4 characterised in that the prestressing bars are adjustable by adjusting screws (18) which can be screwed laterally radially into the slider and which act radially at the outside on the prestressing bars (5).

6. A linear sliding guide according to one of claims 1 to 5 characterised in that the sliding bearings (6a) are fitted on to metal carriers (6b).

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7. A metal carrier (6b) for receiving a sliding bearing (6a), in particular for use in a linear sliding guide according to one of claims 1 to 6, characterised in that in cross-section it is substantially of the geometry of a semicylinder with a flattened side and that provided on the flattened side is
10 a recess extending in the longitudinal direction for receiving a sliding bearing (6a).

AMENDED CLAIMS

[received by the International Bureau on 19 september 2003 (19.09.03) ;
original claims 1-6 replaced by amended claims 1-6 (2 pages)]

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1. A linear sliding guide comprising a shaped rail (1)
15 which extends in the longitudinal direction and which
is of a given cross-section with 5 sliding surfaces,
and a slider (2) which is axially displaceable on the
sliding surfaces of the shaped rail and wherein pro-
20 vided on the slider (2) are sliding bearings (6, 7)
which in the position of installation bear against the
sliding surfaces and the contact pressure of which
against the sliding surfaces is adjustable by way of
clamping means, where the shaped rail (1) has mutu-
25 ally oppositely disposed recesses (10, 12) extending
in the longitudinal direction and the sliding sur-
faces are provided within the recesses (10, 12) and-
provided in corresponding relationship with each recess
(10, 12) on the slider (2) is a prestressing bar (5)
30 with a wedge-shaped operative surface which can be
pressed into the respective recess (10, 12) and that
the sliding bearings (6, 7) are respectively arranged
on the operative surfaces characterised in that, and in
that the sliding surfaces are of an arcuately con-
35 cavelly curved configuration and the surfaces of the
sliding bearings (6, 7), which bear against the sliding
surfaces, are convexly rounded in complementary rela-

tionship with the sliding surfaces.

2. A linear sliding guide according to claim 1 character-
ised in that the prestressing bars (5) are radially dis-
placeable.
3. A linear sliding guide according to claim 2 character-
ised in that the prestressing bars (5) are displaceable
independently of each other.
4. A linear sliding guide according to one of
claims 1 to 3 characterised in that the
prestressing bars are adjustable by adjusting screws
(18) which can be screwed laterally radially into the
slider and which act radially at the outside on the
prestressing bars (5).
5. A linear sliding guide according to one of
claims 1 to 4 characterised in that the sliding
bearings (6a) are fitted on to metal carriers (6b).
6. A metal carrier (6b) for receiving a sliding
bearing (6a), in particular for use in a linear
sliding guide according to one of claims 1 to
5, characterised in that in cross-section it is substan-
tially of the geometry of a semicylinder with a flat-
tened side and that provided on the flattened side is a
recess extending in the longitudinal direction for
receiving a sliding bearing